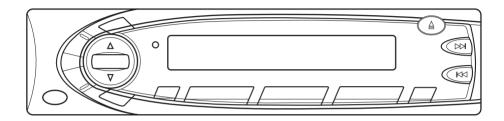
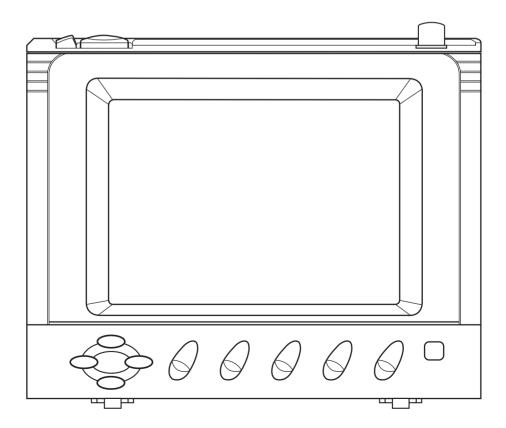


OWNER'S MANUAL

COLOUR LCD TV/RECEIVER





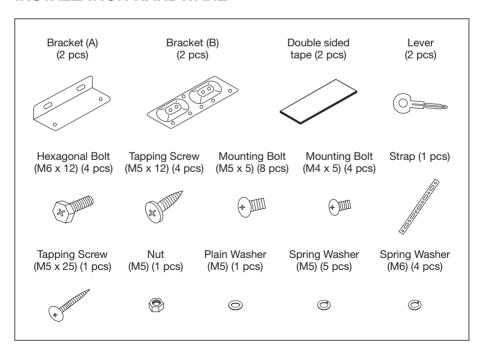
INSTALLATION

Notes:

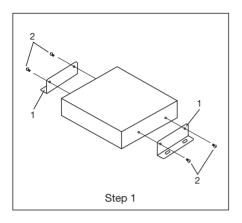
- Choose the mounting location where the unit will not interfere with the normal driving function of the driver.
- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.

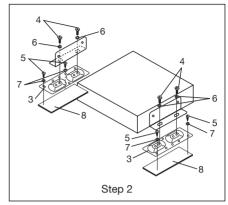
 Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

INSTALLATION HARDWARE



MOUNTING THE TUNER UNIT





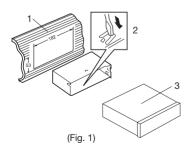
- 1. Bracket (A)
- 2. Mounting Bolt (M5 x 5)
- 3. Bracket (B)
- 4. Hexagonal Bolt with Washer (M6 x 12) 8. Double Sided Tape
- 5. Tapping Screw with Washer (M5 x 12)
- 6. Spring Washer (M6)
- 7. Spring Washer (M5)

INSTALL THE DISPLAY UNIT

Before install the display unit, please remove its tail screw and cable parts. This unit can be properly installed either from "front" (convertional DIN Front-mount) or "rear" (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

DIN FRONT-MOUNT

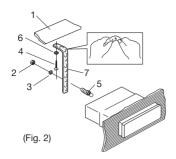
Installing the unit



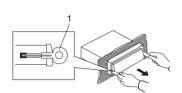
- 1. Dashboard
- 2. Holder

After inserting the holder into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.

3. Display Unit



Removing the unit



- 1 Dashboard
- 2. Nut (M5)
- 3. Spring Washer
- 4. Tapping Screw with Washer (M5 x 25)
- 5. Screw
- 6. Plain Washer
- 7. Strap

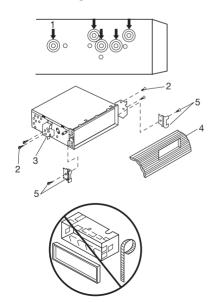
Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.

1. Lever

Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers upward and out to makes it possible to remove the unit.

DIN REAR-MOUNT

Installation using the screw holes on the both sides of the unit.



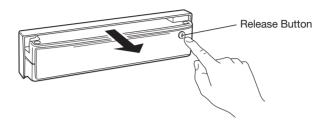
Fastening the unit to the factory radio mounting bracket.

- Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side.
 - Use either truss screws (5 x 6mm) or screws (4 x 6mm), depending on the shape of the screw holes in the bracket.
- 2. Screw
- 3. Factory Radio Mounting Bracket
- 4. Dashboard or Console
- 5. Hook and Screw (Remove this part)

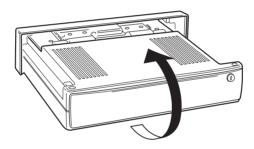
Note: The frame, strap, and half-sleeve are not used for REAR-MOUNT.

HOW TO OPEN AND CLOSE THE SCREEN DISPLAY

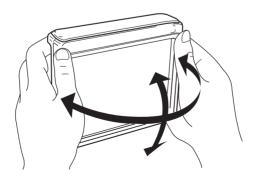
1. Press release button to draw out the screen display.



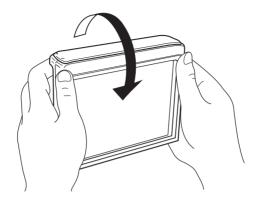
2. Turning the display upward.



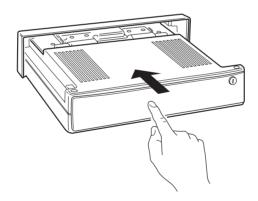
3. Adjusting the viewing angle. Angle should be adjusted slowly without applying unreasonable force.



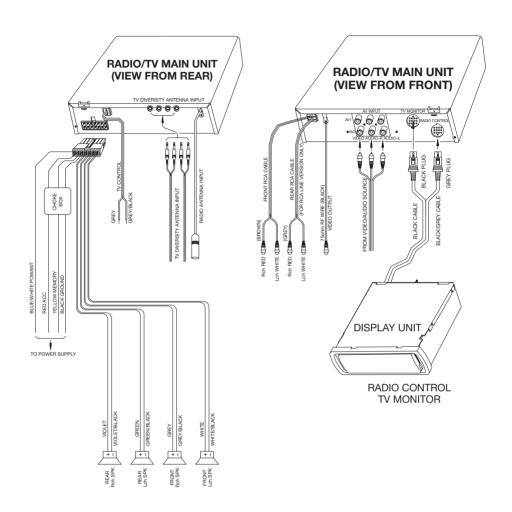
4. Turning the display downward. Make sure to return the display to centre position before drawing in. It cannot be draw in with its angles adjusted.



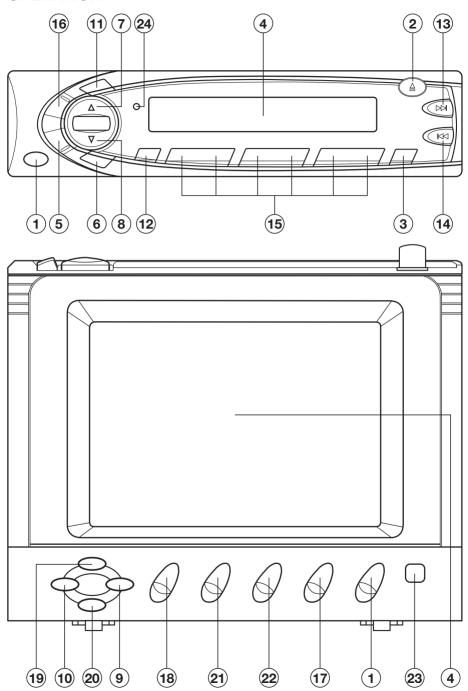
5. Push the panel, the display will be drawn in.



ELECTRICAL CONNECTION



OPERATION



GENERAL OPERATION

ON/OFF

Switch on the unit by pressing **PWR** button (1). When system is on, press it again to turn it off.

• FACEPLATE RELEASE

Press **REL** button (2) to draw out the faceplate, push the panel to draw in. When the faceplate is drawn out, turn the faceplate upward and adjust TV display.

SELECTING SOUND MODE

Press **SEL** button (6) to move display through volume, bass, treble, balance and fader functions. Use \triangle (7) and ∇ (8) buttons to adjust the selected mode. When mode has not been adjusted for several seconds, display returns to previous display status.

Volume

Adjust volume level using \triangle (7) and ∇ (8) buttons.

Bass

Press **SEL** button (6) for one time. Adjust bass level using \triangle (7) and ∇ (8) buttons.

Treble

Press **SEL** button (6) for two times. Adjust treble level using \triangle (7) and ∇ (8) buttons.

Balance

Press **SEL** button (6) for three times. Adjust sound balance between left and right speakers using \triangle (7) and ∇ (8) buttons.

Fader

Press **SEL** button (6) for four times. Adjust sound balance between front and rear speakers using \triangle (7) and ∇ (8) buttons.

SELECTING PLAYING MODE

When the screen display is drawn out, the unit would automatically switch into TV mode. By pressing **MOD** button (12), you can select desired playing mode among TV and radio.

CAUTION: The unit cannot be switched into TV mode, when the car is running. So at this time, you just select playing mode in radio.

MUTE

Press **MUT** button (3) to cut down sound output, "**MUTE**" appears on display. Press it again to resume the previous volume level.

SETTING THE CLOCK

Press **T/F** button (5) to change the display into clock display. While the current time is appeared on the display, press it again to return to frequency showing.

Time Setting

- Set hours:

Holding down **T/F** button (5) for several seconds, and the clock is blinking on the display, press ⊮⊲ button (14) to adjust the hour.

- Set minutes:

Holding down **T/F** button (5) for several seconds, and the clock is blinking on the display, press ⋈ button (13) to adjust the minutes.

• LIQUID CRYSTAL DISPLAY

The LCD (4) can show the current state of the unit.

• RESET

Reset button (24) must be activated with either a ball-point pen or thin metal object. The reset button is to be activated for the following reasons:

- Initial installation of the unit when all wiring is completed.
- All the function buttons do not operate.
- Error symbol on the display.

RADIO OPERATION

SELECTING BAND

Press **BAND** button (11) to change between three FM bands and two AM bands. Each band stores up to six preset stations.

SELECTING STATION

During radio mode, press **MAN/SKP** button ⋈ (13) to increase frequency or ⋈ (14) to decrease frequency by one step of channel spacing. Hold the button longer for fast tuning. The frequency is updated correspondingly on display.

SELECTING MEMORY

Press preset memory buttons (15) to preset stations at tuner mode. With this system, a total of 30 stations can be stored in the memory of six buttons. The stations might be FM1, FM2, FM3, AM1 and AM2 band. The operation is as below:

- Store in Memory

Press and hold desired memory location button for several seconds. The current listening station will be stored into the number button.

- Retrieve a Preset Station

Press any one of the buttons (15) to retrieve a station which had been stored in the memory in advance the chosen number is shown on display.

AUTO MEMORY STORING & SCANNING

- Auto Memory Scanning

Check the stations stored in the preset memories.

Press to retrieve automatically the current stations stored in six preset memories and it will display for several seconds. Press either the **AS/PS** button (16) again or anyone of the memory buttons to stop the scan operation. During the preset scan operation, the channel number flashes on the display for several seconds. Preset station scan continuously in the pre-selected band.

- Auto Memory Storing

Seeks the six strongest stations in the pre-selected band automatically and stores the stations automatically in preset memories.

Initially the tuner seeks and memories the stations in local mode until 6 stations are fully occupied. Otherwise, seeking is proceeded in distance mode.

TV OPERATION

SELECTING RECEIVING MODE

Press TV/AV button (17) to select among TVch/AV1/AV2.

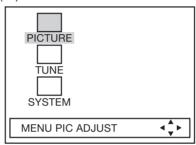
SELECTING CHANNEL

Press CH+ button (9) or CH- button (10) to choose channel upward or downward

MENU CONTROL

In TV mode

Press **MENU** button (18) to switch the MENU CONTROL mode. And the main menu includes three sub-menus: PICTURE MENU, TUNER MENU and SYSTEM MENU. Press **MENU** button (18) for the first time:



Press the **MENU** button repeatedly or press **CH+** button (9) or **CH-** button (10) to select the desired sub-menu then press **CONTROL+** button (19) or **CONTROL-** button (20) to enter the corresponding sub-menu to set.

1. PICTURE MENU

This menu includes all item of picture feature. The menu allows picture adjustment such as bright, contrast, color, and etc. The details please refer to **PICTURE MENU**.

2. TUNER MENU

This is to activate program setting. The details please refer to **TUNER MENU**.

3. SYSTEM MENU

This menu includes the items for system control, such as color, sound, language, and etc. The details please refer to **SYSTEM MENU**.

PICTURE MENU

PICTURE MENU		
⇒BRIGHT	20	
CONTRAST	25	
COLOR	45	
SHARP	63	
TINT	10	

Use **CH+** button (9) or **CH-** button (10) to select picture mode upward or downward. Then use **CONTROL+** button (19) or **CONTROL-**button (20) to adjust the selected item.

Note: When you set the color mode to "PAL" in SYSTEM MENU, there is no "TINT" item to display.

In this menu, the range of setting value is 00~63, and the recommended range of these values are listed below:

BRIGHT: $10\sim32$ CONTRAST: $20\sim40$ COLOR: $40\sim50$ SHARP: 63 TINT: 10

TUNER MENU

--POSITION --

TUNER MENU		
⇒ POS SKIP BAND FINE AFT SEARCH ASM	1 ON UHF OFF	

POSITION setup

You can use numeric buttons to input the TV channel number. For example, you input 8, when you turn off the unit and then turn it on again, the program of channel 8 will be displayed.

--SKIP--

TUNER MENU		
POS ⇔ SKIP BAND FINE	1 ON UHF	
AFT SEARCH ASM	OFF	

SKIP setup

You can use **CONTROL+** button (19) or **CONTROL-** button (20) to switch between ON and OFF.

If you set the position to 8 and select SKIP to ON, when you press **CH+** button (9) or **CH-** button (10) to choose channel, the channel 8 will be skipped.

--BAND--

TUNER MENU		
POS SKIP ⇔ BAND FINE AFT SEARCH ASM	1 ON UHF OFF	

BAND setup

You can use **CONTROL+** button (19) or **CONTROL-** button (20) to switch between UHF, VHFL and VHFH band.

--FINE--

TUNER MENU		
POS SKIP BAND ⇔ FINE AFT SEARCH ASM	1 ON UHF OFF	

FINE setup

When the frequency has warp, and the picture displayed unstable, you can use **CONTROL+** button (19) or **CONTROL-** button (20) to start FINE function to adjust it.

--AFT--

TUNER MENU		
POS SKIP BAND FINE □ AFT	1 ON UHF OFF	
SEARCH ASM		

AFT (Auto Frequency Trace) setup

Use **CONTROL**+ button (19) or **CONTROL**– button (20) to switch between ON and OFF.

--SFARCH--

TUNER MENU		
POS SKIP BAND FINE AFT	1 ON UHF OFF	
⇒ SEARCH ASM		

SEARCH setup

Use **CONTROL+** button (19) or **CONTROL-** button (20) to start manual station search. And it will start from the band you select in BAND setup. The SKIP and AFT two items will be set automatically.

--ASM--

TUNER MENU		
POS SKIP BAND FINE AFT SEARCH ⇒ ASM	1 ON UHF OFF	

ASM (Auto Search Memory) setup

Use **CONTROL+** button (19) or **CONTROL-** button (20) to start auto station search. The SKIP, BAND and AFT three items will be set automatically. And it will start from the VHFL band. When the search completed and all stations that searched have been stored in the unit, it will exit search mode. Note:

- Before auto search memory, you must enter into SYSTEM MENU to set COLOR mode to "AUTO" and the SOUND mode according to the local region first.
- The number of the program that searched is just the channel-stored number and it does not match the real channel number. If you want get the real channel number, you can press SORT button to arrange these channels.

SYSTEM MENU

--COLOR--

SYSTEM MENU		
⇔ COLOR SOUND LANG. B/B CORING HALFTONE	AUTO M ENGLISH ON ON	

COLOR setup

Use **CONTROL+** button (19) or **CONTROL-** button (20) to switch color mode among AUTO, PAL, N3.58 and N4.43.

--SOUND--

SYSTEM MENU		
COLOR ⇒ SOUND LANG. B/B CORING HALFTONE	AUTO M ENGLISH ON ON ON	

SOUND setup

Use **CONTROL**+ button (19) or **CONTROL**- button (20) to switch sound mode among M, B/G, I and D/K.

--I ANG.--

SYSTEM MENU		
COLOR SOUND ⇒ LANG. B/B CORING HALFTONE	AUTO M ENGLISH ON ON ON	

LANG. (Language) setup

Use **CONTROL**+ button (19) or **CONTROL**- button (20) to switch between ENGLISH and CHINESE.

--B/B--

SYSTEM MENU		
COLOR SOUND LANG. ⇒ B/B CORING HALFTONE	AUTO M ENGLISH ON ON ON	

B/B (Blue Background) setup

Use **CONTROL**+ button (19) or **CONTROL**- button (20) to switch the blue background between ON and OFF.

--CORING--

SYSTEM MENU		
COLOR SOUND LANG. B/B ⇔ CORING HALFTONE	AUTO M ENGLISH ON ON ON	

CORING setup

Use **CONTROL+** button (19) or **CONTROL-** button (20) to switch between ON and OFF. When the coring function is on, it can effectively decease the picture noise and improve the image quality.

--HALFTONE--

SYSTEM MENU		
COLOR SOUND LANG. B/B CORING ➡ HALFTONE	AUTO M ENGLISH ON ON ON	

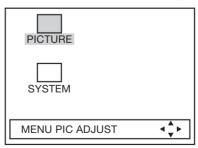
HALFTONE setup

Use **CONTROL+** button (19) or **CONTROL-** button (20) to switch the menu background between ON and OFF.

Note: In the menus (except TUNER MENU), if you don't operate over 6 seconds, the screen display will disappear.

In AV mode

Press **MENU** button (18), the screen will display PICTURE MENU and SYSTEM MENU but not TUNER MENU. And in SYSTEM MENU, there is no "SOUND" item.



Press **MENU** button for the first time:

The setting method is the same with that in TV mode.

Note: In the menus, if you don't operate over 6 seconds, the screen display will disappear.

PROGRAM SCANNING

Press **SCAN** button (22), "SCAN OFF" will display on the lower left corner of the screen. Press it again, the screen will display "SCAN ON", then it begins to scan 1.5 seconds of each channel in sequence. When it completes, the screen will display "SCAN OFF".

In the course of scanning, press SCAN button (22), "SCAN OFF" will also display on the screen and it stops on the TV channel just scanning.

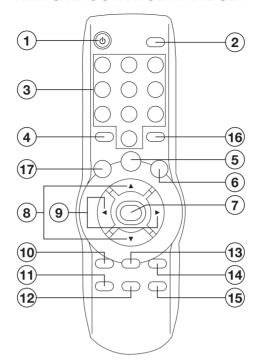
SCREEN DISPLAY

Press **DSP** button (21), the screen will display the current status such as TVch/AV1/AV2, the COLOR SYSTEM and the SOUND SYSTEM on the right-top corner. In AV mode, there is no SOUND SYSTEM display.

REMOTE SENSOR

Point the remote control handset to the remote sensor (23). Press the function keys on the handset to control TV.

REMOTE CONTROL HANDSET



CONTROL & FUNCTION KEYS

- 1. POWER = Press POWER to turn the unit ON or OFF
- 2. TV/AV = Switch between TV/AV1/AV2
- 3. 0 9 = Numeric buttons, press to select the corresponding channel
- 4. -/-- = Digital selecting button, cooperatively used with numeric buttons
- 5. MUTE = Press to mute the sound. When release the button, the screen will display VOLUME XX for about 4 seconds, and this is the AUDIO level setting value of the TV unit. The users may not mind it, and that adjust the volume level by VOL + and VOL buttons.
- 6. SCAN = Scan 1.5 seconds of each channel
- 7. MENU = Display the main menu to adjust picture and set program and control system
- 8. ▲ /▼ = In case of MENU mode, the buttons are used to select the sub-menus
- 9. ◀/▶ = In case of MENU mode, the buttons are used to adjust the selected item
- 10. VOL + = Increase the volume level
- 11. VOL = Decrease the volume level
- 12. PICT = Select picture mode. There are five modes: STANDARD, SHARP, BRIGHT, MEMORY and MILD. The MEMORY mode is user-defined mode and the others are preset mode.
- 13. RETURN = Switch between last viewed channel and this time viewed channel
- 14. CH + = Choose channel upward
- 15. CH = Choose channel downward
- 16. DSP = Press to display the channel number and SYSTEM status. In AV mode, there is no SOUND SYSTEM display
- 17. SORT = Program sorting button, cooperatively used with digital selecting button and numeric buttons

SPECIFICATION

GENERAL

Power Supply Voltage : DC 12 Volts, Negative Ground Maximum Power : 4 x 60 Watts

Maximum Power

: 10 Ampere (max.)

Tone Controls

- Bass (at 100 Hz) : +/- 10 dB - Treble (at 10 KHz) : +/- 10 dB

TV

Monitor Screen Size : 5.0" TFT

: 960 x 234 dots Resolution

: 45 dB_µV/PD (max.) @CH25 in average TV Sensitivity

RADIO

FM

: 87.5 to 107.9 MHz

Frequency Coverage Sensitivity (30 dB S/N) : 6 μV Image Rejection : > 45 dB Stereo Separation : > 25 dB

AM

: 530 to 1710 KHz

Frequency Coverage : 530 to Sensitivity (20 dB S/N) : 35 dB Image Rejection : 45 dB